NASA Facts

National Aeronautics and
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Atlas Offers Schools Partnerships for Internet Access

The goal of Affordable Technology To Link America's Schools (ATLAS) is to offer cost-saving Internet access to 70,000 American K-12 school sites by the year 2000.

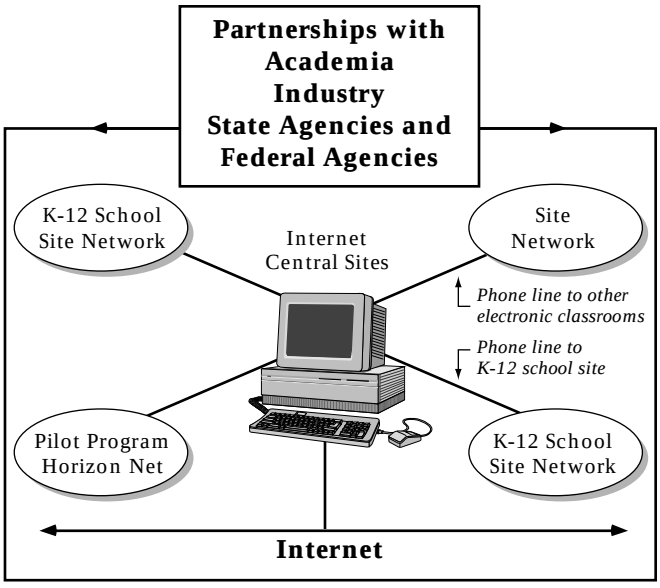
ATLAS is a "blueprint" to describe the implementation of government, industry, and academia partnerships allowing our Nation's schools and communities to become travelers on the information superhighway. The High Performance Computing and Communications/ Information Infrastructure Technology and Applications (HPCC/IITA) program at NASA Langley Research Center in Hampton, Va., supports the federal order to promote American education through research that allows the integration of computational science and communications into K-12 classrooms. ATLAS is a commercialization outgrowth of this research effort.

Benefits

The prototype Internet access solution developed at Langley offers up to an 80 percent cost-savings over the standard solutions. Additionally, the infusion of information technology into a community creates a positive "domino effect." Interest is sparked from the school classroom resulting in continued skill building at home, benefiting both students and parents.

About the Technology

Langley's research effort resulted in a scalable, supportable, and sustainable prototype solution for Internet access that complies with the Internet Engineering Task Force recommendations, affords low recurring costs and offers acceptable performance for school networks over a standard phone line. A regional approach helps reduce the high costs typically associated with Internet access. The NASA-supported seven-school pilot program, HorizonNet, has grown to a self-sustaining public school system initiative of more than 60 schools.



This diagram demonstrates regional approach of the Langley technology within ATLAS. One computer at the Internet Central Site is connected to the Internet and then other sites connect to the previously linked computer via phone lines. All are provided Internet access in a cost-effective manner.

Options for Commercialization

Three distinct functions are required for successful implementation: First, the transfer of technical expertise from NASA; second, the facilitation of partnerships to use existing infrastructures, thereby leveraging resources; finally, obtaining support and growth of the technology from industry. Collaboration by NASA centers, a memorandum of understanding with the Virginia State Office of the U.S. Department of Housing and Urban Development and with the Unified Research Laboratories, Inc., of Hampton, Va., are the first partnerships to demonstrate these functions.